

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To:
**MARSHALL O'TOOLE GERSTEIN
MURRAY & BORUN**
 Attn. CLOUGH, David W.
 6300 Sears Tower
 233 South Wacker Drive
 Chicago, Illinois 60606
 UNITED STATES OF AMERICA

PCT

RECEIVED
 NOTIFICATION OF TRANSMITTAL OF
 THE INTERNATIONAL SEARCH REPORT
 OR THE DECLARATION

MAY 28 2002

(PCT Rule 44.1)

MARSHALL GERSTEIN

Date of mailing (day/month/year)	17/05/2002
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Applicant's or agent's file reference 01017/36667/PCT	FOR FURTHER ACTION	See paragraphs 1 and 4 below
International application No. PCT/US 00/ 23110	International filing date (day/month/year)	23/08/2000
Applicant THE ADMINISTRATORS OF THE TULANE EDUCATIONAL FUND	DOCKETED: 7/17/02	

1. The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland
Fascimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Further action(s): The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

DOCKETED

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the International Searching Authority  European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Joëlle Gerber
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NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the International application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

DOCKETED**When?**

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?**Letter (Section 205(b)):**

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]: "Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]: "Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]: "Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or "Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]: "Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments and any accompanying statement, under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the time of filing the amendments (and any statement) with the International Bureau, also file with the International Preliminary Examining Authority a copy of such amendments (and of any statement) and, where required, a translation of such amendments for the procedure before that Authority (see Rules 55.3(a) and 62.2, first sentence). For further information, see the Notes to the demand form (PCT/IPEA/401).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 01017/36667/PCT	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 00/ 23110	International filing date (day/month/year) 23/08/2000	(Earliest) Priority Date (day/month/year) 23/08/1999
Applicant THE ADMINISTRATORS OF THE TULANE EDUCATIONAL FUND		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 12 sheets.
 It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the International application, the international search was carried out on the basis of the sequence listing :

contained in the international application in written form.

filed together with the international application in computer readable form.

furnished subsequently to this Authority in written form.

furnished subsequently to this Authority in computer readable form.

the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. Certain claims were found unsearchable (See Box I).3. Unity of Invention is lacking (see Box II).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

as suggested by the applicant.

because the applicant failed to suggest a figure.

because this figure better characterizes the invention.

None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 00/23110

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

Agents selected from the group comprising adrenergic agonists, adrenergic antagonists, neurotransmitters, cytokines, amino acids, opiate peptides, purinergic agonists, glutaminergic agonists, more particularly consisting of epinephrine, isoproterenol, arterenol, cirazoline, yohimbine, phentolamine, prasozin, benoxathian, TNF- α , tyrosine, adenosine and glutamate are used alone or in combination with leptins for modulating the transport of leptin across the blood-brain barrier, modulating body weight in mammal and for modulating appetite in a mammal.

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/US 00/23110

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 1-32 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. Claims Nos.: 50, 67 because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.: 1-5, 11-16, 23-27, 33-34, 40, 41, 44-46, 55-59, 61, 72-76 (partially)
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-5, 11-16, 23-27, 33-34, 40, 41, 44-46, 55-59, 61, 72-76 (partially)

Remark on Protest

The additional search fees were accompanied by the applicant's protest.
 No protest accompanied the payment of additional search fees.

International Application No. PCT/US 00/23110

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-5,11-16,23-27,33-34,40,41,44-46,55-59,61,
72-76 (PARTIALLY)

Use and composition comprising epinephrine for modulating the transport of leptin across the blood-brain barrier, modulating body weight in a mammal and for modulating appetite in a mammal.

2. Claims: 1-5,11-16,23-27,33-34,40,41,44-46,55-59,61,
72-76 (PARTIALLY)

Use and composition comprising isoproterenol for modulating the transport of leptin across the blood-brain barrier, modulating body weight in a mammal and for modulating appetite in a mammal.

3. Claims: 1-5,11-16,23-27,33-34,40,41,44-46,55-59,61,
72-76 (PARTIALLY)

Use and composition comprising arterenol for modulating the transport of leptin across the blood-brain barrier, modulating body weight in a mammal and for modulating appetite in a mammal.

4. Claims: 1-5,11-16,23-27,33-34,40,41,44-46,55-59,61,
72-76 (PARTIALLY)

Use and composition comprising cirazoline for modulating the transport of leptin across the blood-brain barrier, modulating body weight in a mammal and for modulating appetite in a mammal.

5. Claims: 1-4,6,11-15,17,19,20,23-26,28,33,35,40,42,43,45,
55-57,59,60,72-76 (partially)

Use and composition comprising yohimbine for modulating the transport of leptin across the blood-brain barrier, modulating body weight in a mammal and for modulating appetite in a mammal.

6. Claims: 1-4,6,11-15,17,19,20,23-26,28,33,35,40,42,43,45,
55-57,59,60,72-76 (partially)

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Use and composition comprising phentolamine for modulating the transport of leptin across the blood-brain barrier, modulating body weight in a mammal and for modulating appetite in a mammal.

7. Claims: 1-4, 6, 11-15, 17, 19, 20, 23-26, 28, 33, 35, 40, 42, 43, 45,
55-57, 59, 60, 72-76 (partially)

Use and composition comprising prasozin for modulating the transport of leptin across the blood-brain barrier, modulating body weight in a mammal and for modulating appetite in a mammal.

8. Claims: 1-4, 6, 11-15, 17, 19, 20, 23-26, 28, 33, 35, 40, 42, 43, 45,
55-57, 59, 60, 72-76 (partially)

Use and composition comprising benoxathian for modulating the transport of leptin across the blood-brain barrier, modulating body weight in a mammal and for modulating appetite in a mammal. TNF-a, tyrosine, adenosine and glutamate.

9. Claims: 1-4, 11-15, 19, 23-26, 33, 40, 55-57 (partially) 7, 18, 29,
36, 45-47, 62-64

Use and composition comprising TNF-a for modulating the transport of leptin across the blood-brain barrier, modulating body weight in a mammal and for modulating appetite in a mammal.

10. Claims: 1-4, 11-15, 19, 23-26, 33, 44, 55, 56, 65,
72-76 (partially) 8, 17, 30, 37, 48, 49, 66

Use and composition comprising tyrosine for modulating the transport of leptin across the blood-brain barrier, modulating body weight in a mammal and for modulating appetite in a mammal.

11. Claims: 1-4, 11-15, 19, 23-26, 33, 55, 56, 76 (partially) 9, 21, 31,
38, 51, 52, 68, 69

Use and composition comprising adenosine for modulating the transport of leptin across the blood-brain barrier,

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

modulating body weight in a mammal and for modulating appetite in a mammal.

12. Claims: 1-4,11-15,19,23-26,33,44,55,56,61,65,
76 (partially) 10,22,32,39,53,54,70,71

Use and composition comprising glutamate for modulating the transport of leptin across the blood-brain barrier, modulating body weight in a mammal and for modulating appetite in a mammal.

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 50,67

Present claims

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/US 00/23110

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K31/137 A61K31/198 A61K31/39 A61K31/4164 A61K31/417
A61K31/475 A61K31/517 A61K31/7076 A61K38/19 A61P3/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, BIOSIS, CHEM ABS Data, MEDLINE, EMBASE, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category * Citation of document, with indication, where appropriate, of the relevant passages

Relevant to claim No.

X US 4 525 359 A (GREENWAY III FRANK L ET AL) 25 June 1985 (1985-06-25)

1,2,5,
11,12,
15,16,
19,23,
24,27,
40-42,
44,
57-59,
61,74

abstract
column 1, line 5 -column 5, line 48;
claims 1-16

-/-



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

21 December 2001

Date of mailing of the international search report

17.05.2002

Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patenlaan 2
NL - 2280 HV Rijswijk
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Authorized officer

A. Jakobs

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/US 00/23110

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to claim No.
Category	Citation of document, with indication, where appropriate, of the relevant passages	
X	WO 91 00730 A (DAK LAB AS) 24 January 1991 (1991-01-24)	1,2,5, 11,12, 15,16, 19,23, 24,27, 40-42, 44, 57-59, 61,74 1-5, 11-16, 23-27, 33,34, 40,41, 44-46, 55-59, 61,72-76
Y	abstract	
	page 3, line 7-22 page 4, line 3 -page 5, line 27 page 6, line 29 -page 8, line 34; examples 1-3; tables 3,4 page 37, line 14-19 ---	
X	US 5 422 352 A (ASTRUP ARNE) 6 June 1995 (1995-06-06)	1,2,5, 11,12, 15,16, 19,23, 24,27, 40-42, 44, 57-59, 61,74
X	abstract; figures 5,9 column 5, line 65 -column 12, line 68 ---	1,2,5, 11,12, 15,16, 19,23, 24,27, 40-42, 44, 57-59, 61,74
X	DATABASE BIOSIS [Online] BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 1986 LEIBOWITZ S F ET AL: "AMPHETAMINE EFFECTS ON MEAL PATTERNS AND MACRONUTRIENT SELECTION" Database accession no. PREV198783067756 XP002186403	1,2,5, 11,12, 15,16, 19,23, 24,27, 40-42, 44, 57-59, 61,74
	abstract & BRAIN RESEARCH BULLETIN, vol. 17, no. 5, 1986, pages 681-690, ISSN: 0361-9230 ---	-/-

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 00/23110

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to claim No.
Category	Citation of document, with indication, where appropriate, of the relevant passages	
X	NEMECZ M ET AL: "ACUTE EFFECT OF LEPTIN ON HEPATIC GLYCOGENOLYSIS AND GLUCONEOGENESIS IN PERFUSED RAT LIVER" HEPATOLOGY, WILLIAMS AND WILKINS, BALTIMORE, MD, US, vol. 29, no. 1, January 1999 (1999-01), pages 166-172, XP001050543 ISSN: 0270-9139 abstract page 166, column 1, paragraph 1 -column 2, paragraph 3; figure 1B page 171, column 2, paragraph 3 ---	1-5, 11-16, 23-27, 33,34, 40,41, 44-46, 55-59, 61,72-76
X	CAO G-Y ET AL: "LEPTIN RECEPTORS ARE LOCATED ON EPINEPHRINE SECRETING CELLS IN THE ADRENAL MEDULLA OF THE RAT" SOCIETY FOR NEUROSCIENCE ABSTRACTS, SOCIETY FOR NEUROSCIENCE, US, vol. 23, no. 1/2, 25 October 1997 (1997-10-25), page 851 XP001034840 ISSN: 0190-5295 abstract ---	1-5, 11-16, 23-27, 33,34, 40,41, 44-46, 55-59, 61,72-76
X	CARULLI L ET AL: "REGULATION OF OB GENE EXPRESSION IN HUMANS:EFFECTS OF ADRENALINE" INTERNATIONAL JOURNAL OF OBESITY, NEWMAN PUBLISHING, LONDON, GB, vol. 22, no. SUPPL 3, August 1998 (1998-08), page S168 XP001050561 ISSN: 0307-0565 abstract ---	1-5, 11-16, 23-27, 33,34, 40,41, 44-46, 55-59, 61,72-76
P,X	CARULLI L ET AL: "REGULATION OF OB GENE EXPRESSION: EVIDENCE FOR EPINEPHRINE-INDUCED SUPPRESSION IN HUMAN OBESITY" JOURNAL OF CLINICAL ENDOCRINOLOGY AND METABOLISM, NEW YORK, NY, US, vol. 84, no. 9, September 1999 (1999-09), pages 3309-3312, XP001050541 ISSN: 0021-972X the whole document ---	1-5, 11-16, 23-27, 33,34, 40,41, 44-46, 55-59, 61,72-76
P,X	COMMINS S P ET AL: "NOREPINEPHRINE IS REQUIRED FOR LEPTIN EFFECTS ON GENE EXPRESSION IN BROWN AND WHITE ADIPOSE TISSUE" ENDOCRINOLOGY, BALTIMORE, MD, US, vol. 140, no. 10, October 1999 (1999-10), pages 4772-4778, XP001050535 ISSN: 0013-7227 the whole document ---	1-5, 11-16, 23-27, 33,34, 40,41, 44-46, 55-59, 61,72-76

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 00/23110

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to claim No.
Category	Citation of document, with indication, where appropriate, of the relevant passages	
X	COSTA A ET AL: "STIMULATION OF CORTICOTROPIN-RELEASING HORMONE BY THE OBESE (OB) GENE PRODUCT, LEPTIN, FROM HYPOTHALAMIC EXPLANTS" NEUROREPORT, RAPID COMMUNICATIONS OF OXFORD, OXFORD, GB, vol. 8, no. 5, 24 March 1997 (1997-03-24), pages 1131-1134, XP001050526 ISSN: 0959-4965 the whole document ---	1-5, 11-16, 23-27, 33,34, 40,41, 44-46, 55-59, 61,72-76
X	MOSTYN A ET AL: "EFFECTS OF ADRENALINE, NORADRENALINE AND ISOPRENALINE ON CIRCULATING LEPTIN LEVELS IN MICE" PROCEEDINGS OF THE NUTRITION SOCIETY, LONDON, GB, vol. 58, no. 3, 30 September 1998 (1998-09-30), page 69A XP001034845 ISSN: 0029-6651 abstract ---	1-5, 11-16, 23-27, 33,34, 40,41, 44-46, 55-59, 61,72-76
Y	DATABASE BIOSIS [Online] BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; August 1998 (1998-08) BJORBAEK CHRISTIAN ET AL: "Expression of leptin receptor isoforms in rat brain microvessels." Database accession no. PREV199800389876 XP002186404 abstract & ENDOCRINOLOGY, vol. 139, no. 8, August 1998 (1998-08), pages 3485-3491, ISSN: 0013-7227 ---	1-5, 11-16, 23-27, 33,34, 40,41, 44-46, 55-59, 61,72-76
Y	DATABASE BIOSIS [Online] BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 1998 RAMSEY JON J ET AL: "Different central and peripheral responses to leptin in rhesus monkeys: Brain transport may be limited." Database accession no. PREV199800477375 XP002186405 abstract & JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM, vol. 83, no. 9, 1998, pages 3230-3235, ISSN: 0021-972X ---	1-5, 11-16, 23-27, 33,34, 40,41, 44-46, 55-59, 61,72-76

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/US 00/23110

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to claim No.
Category *	Citation of document, with indication, where appropriate, of the relevant passages	
X	CAO GAO-YUAN ET AL: "Leptin receptors in the adrenal medulla of the rat." AMERICAN JOURNAL OF PHYSIOLOGY, vol. 273, no. 2 PART 1, 1997, pages E448-E452, XP001050525 ISSN: 0002-9513 abstract page E448, column 1, paragraph 1 -column 2, paragraph 3 page E450, column 1, paragraph 2 -page E451, column 1, paragraph 3 -----	1-5, 11-16, 23-27, 33,34, 40,41, 44-46, 55-59, 61,72-76
T	BANKS WILLIAM A: "Enhanced leptin transport across the blood-brain barrier by alpha1-adrenergic agents." BRAIN RESEARCH, vol. 899, no. 1-2, 2001, pages 209-217, XP001051007 ISSN: 0006-8993 -----	1-72

INTERNATIONAL SEARCH REPORT
 Information on patent family members

 International Application No
 PCT/US 00/23110

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4525359	A 25-06-1985	AT 54823 T CA 1228026 A1 DE 3381767 D1 EP 0120165 A2 JP 6053681 B JP 59155313 A US 4588724 A	15-08-1990 13-10-1987 30-08-1990 03-10-1984 20-07-1994 04-09-1984 13-05-1986
WO 9100730	A 24-01-1991	AT 107858 T AU 638992 B2 AU 5630890 A CA 2063598 A1 DE 69010336 D1 DE 69010336 T2 WO 9100730 A1 DK 480934 T3 EP 0480934 A1 ES 2055911 T3 HK 1001821 A1 HU 62798 A2 JP 2584899 B2 JP 4507091 T KR 159045 B1 LT 702 A ,B LV 10192 A ,B NO 920051 A RU 2109511 C1 US 5422352 A	15-07-1994 15-07-1993 06-02-1991 08-01-1991 04-08-1994 03-11-1994 24-01-1991 07-11-1994 22-04-1992 01-09-1994 10-07-1998 28-06-1993 26-02-1997 10-12-1992 01-12-1998 31-01-1995 20-10-1994 31-01-1992 27-04-1998 06-06-1995
US 5422352	A 06-06-1995	AT 107858 T AU 638992 B2 AU 5630890 A CA 2063598 A1 DE 69010336 D1 DE 69010336 T2 WO 9100730 A1 DK 480934 T3 EP 0480934 A1 ES 2055911 T3 HK 1001821 A1 HU 62798 A2 JP 2584899 B2 JP 4507091 T KR 159045 B1 LT 702 A ,B LV 10192 A ,B NO 920051 A RU 2109511 C1	15-07-1994 15-07-1993 06-02-1991 08-01-1991 04-08-1994 03-11-1994 24-01-1991 07-11-1994 22-04-1992 01-09-1994 10-07-1998 28-06-1993 26-02-1997 10-12-1992 01-12-1998 31-01-1995 20-10-1994 31-01-1992 27-04-1998

PATENT COOPERATION TREATY

PCT

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
 MC MILLIAN, Nabeela R.
 MARSHALL O'TOOLE GERSTEIN
 MURRAY & BORUN
 6300 Sears Tower
 233 South Wacker Drive
 Chicago, Illinois 60606
 ETATS-UNIS D'AMERIQUE

RECEIVED

JUN 25 2002

MARSHALL GERSTEIN

WRITTEN OPINION

(PCT Rule 66)

DOCKETED: (8/17/02)

Applicant's or agent's file reference
01017/36667/PCTDate of mailing
(day/month/year)

17/06/2002

International application No.

REPLY DUE

within 2 / 00 months/days
from the above date of mailing

PCT/US 00/23110

International filing date (day/month/year)
23/08/2000Priority date (day/month/year)
23/08/1999International Patent Classification (IPC) or both national classification and IPC
A61K38/00

Applicant

The Administrators of the Tulane Educational Fund

1. This written opinion is the first drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:

- I Basis of the opinion
- II Priority
- III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

- IV Lack of unity of invention

V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement

- VI Certain documents cited

- VII Certain defects in the international application

- VIII Certain observations on the international application

DOCKETED: (8/17/02)

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority

to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3.

For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.

For the examiner's obligation to consider amendments and/or arguments, see Rule 66.6.

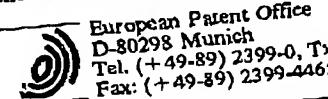
For an informal communication with the examiner, see Rule 66.5.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

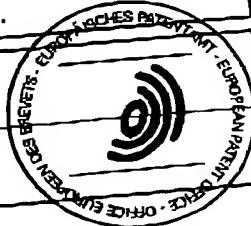
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is:

23/12/2001

Name and mailing address of the IPEA/



European Patent Office
D-80298 Munich
Tel. (+49-89) 2399-0, Tx: 523656 epmu d
Fax: (+49-89) 2399-4465

Authorized officer
ExaminerFormalities officer
(incl. extension of time limits)
Tel. (+49-89) 2399 2828

International application No.PCT/US 00/ 23110

WRITTEN OPINION

I. Basis of the opinion

The basis of this written opinion is the application as originally filed.

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The question of whether the claimed invention appears to be novel, to involve an inventive step, or to be industrially applicable has not been and will not be the subject of the international preliminary examination in respect of the claims which have not been searched (Article 17(2)(a) or (3) and Rule 66.1(e) PCT; see also international search report).

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability

1. To the extent that the international preliminary examination has been carried out (see item III above), the following is pointed out:

2. In light of the documents cited in the international search report, it is considered that the invention as defined in at least some of the claims, which have been the subject of an international search report, does not appear to meet the criteria mentioned in Article 33(1) PCT, i.e. does not appear to be novel and/or to involve an inventive step (see international search report, in particular the documents cited X and/or Y and corresponding claim references).
3. If amendments are filed, the applicant should comply with the requirements of Rule 66.8 PCT and indicate the basis of the amendments in the documents of the application as originally filed (Article 34 (2) (b) PCT) otherwise these amendments may not be taken into consideration for the establishment of the international preliminary examination report. The attention of the applicant is drawn to the fact that if the application contains an unnecessary plurality of independent claims, no examination of any of the claims will be carried out.

NB: Should the applicant decide to request detailed substantive examination, then an international preliminary examination report will normally be established directly. Exceptionally the examiner may draw up a second written opinion, should this be explicitly requested.

*** RX REPORT ***

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